

REMARKS

By the above actions, claims 1 and 2 have been amended. In view of these actions and the following remarks, further consideration of this application is requested.

The Examiner's indication of allowable subject matter with respect to claim 1 and with respect to claims 3-5 and 11-16 which depend therefrom has been noted with appreciation and based thereon, claim 2 has been rewritten in independent form with the only change being correction of a minor error ("is" changed to -are-). Therefore, allowance of claims 2-5 and 11-16 in order and formal indication of this fact is requested.

Claims 1 and 6-9 have been rejected under 35 USC § 103 as being as being unpatentable over Thomas when viewed in combination with Gesing et al. and the ASM Handbook, Vol. 15,

With regard to the Thomas et al. patent, the numerous citations to portions of that patent all relate to the formation of a "precursor composite" by mixing in "stabilizer particles" with this being performed "under a reduced pressure (approximately 0.5 Torr in Example 1 and 3 Torr in Example 2 and less than 10 Torr in sentence spanning cols. 2 and 3 and in claim 13). However, this "precursor composite" is merely an intermediate product with the actual foam being "produced by a known technique from the precursor composite prepared as above" (column 6, lines 43 and 44). No specific known technique is disclosed by Thomas and the Examiner has not found one in which a gas-containing metal melt is produced from light metal pressure die cast scrap *that has been melted under atmospheric pressure* so as to thereby introduce gas into the fluid light metal without blowing gases into the melt or using blowing agents with the gas-containing metal melt then being molded in a manner allowing the gas-containing metal melt to solidify so as to form a metal foam body in a state in which it is at least temporarily "*under a reduced surrounding pressure that causes the introduced gas to produce foaming of the metal melt.*" The present invention thus does not required the production of a precursor by mixing in of stabilizer particles under reduced pressure, but rather introduces gas under atmospheric pressure into a melt of light scrap metal and then this melt is mold under reduced pressure so that the introduced gas produces the metal foam. As such, the present invention is not only very different from the teachings of the Thomas et al. patent, but also is a much simpler process than Thomas et al.'s.

As for the Gesing et al. patent, the relevance of this patent to either Thomas et al.'s process or that of the present applicant is not discernible and no explanation has been provided by the Examiner as to why an electrolysis process which does not involve the production of a metal foam would be considered relevant to Thomas et al.'s metal foam precursor producing method or the subsequent foaming of their precursor. It is simply not possible for the disclosure of the Gesing et al. patent to make up for the shortcomings of the Thomas et al. patent relative to the present invention that have been commented upon above.

The Examiner's reliance on the ASM Handbook, Vol. 15 is also equally inappropriate since, as noted in applicants' preceding response, the ASM Handbook teaches removing hydrogen from molten aluminum alloys *to obtain a dense cast product*. The Examiner has failed to demonstrate why a technique for producing a solid, unfoamed product would be considered obvious to employ relative to production of a foamed product. If, as the Examiner has stated, "pressure (vacuum) is therefore a result effective variable affecting the porosity of the resulting casting, then why wouldn't the ASM Handbook teaches away from the present invention, i.e., if the application of vacuum would prevent foam formation and produce a dense casting why would one of ordinary skill not take this teaching to mean that vacuum should not be utilized for the production of foams. Put another way, a teaching to heat molds for the purpose of producing a dense casting would not in any way suggest doing so for the production of a cast foam, let alone in a process as claimed here, especially given that the ASM Handbook section relied upon by the Examiner is entirely silent as to the production of foams. Thus, nothing in the ASM Handbook reference can lead to modification of the Thomas et al. process (with or without the teachings of Gesing et al.) in a way that would result in the invention claimed here.

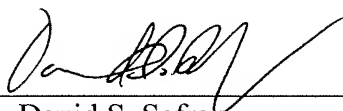
Accordingly, the invention as defined by the claims of this application is patentable over the teachings of these three references no matter how they might be viewed in combination with each other. As such, reconsideration and withdrawal of the outstanding rejection are hereby requested.

As for the provisional obviousness type double patenting rejection of claims 1, 6, 7, and 10 based on co-pending application 11/597,737, it is noted that until such time as claims have been allowed in both applications, this rejection is premature. Moreover, since

application 11/597737 is junior to this application, allowance of this application should not be held up pending examination and allowance of a claim in application 11/597,737 since any necessary actions can be taken in application 11/597,737 at a future date by either amendments to the claims of that application or filing of a Terminal Disclaimer in that later application.

While this application should now be in condition for allowance, in the event that any issues should remain after consideration of this response which could be addressed through discussions with the undersigned, then the Examiner is requested to contact the undersigned by telephone for that purpose.

Respectfully submitted,

By: 
David S. Safran
Registration No. 27,997

Customer No. 25570
Roberts Mlotkowski & Hobbes P.C.
P.O. Box 10064
McLean, VA 22102

Direct Telephone: (703) 584-3273

DSS:kmm